

Urban District Council

OF OSWALDTWISTLE.



Annual Report of the Medical Officer,

—ALSO—

REPORT UPON SANITATION

BY THE

Sanitary Inspector,

FOR THE

DISTRICT of OSWALDTWISTLE,

For Year ended 31st December, 1909.



OSWALDTWISTLE :

J. W. JACKSON, PRINTER, 62, UNION ROAD.

Health Committee,

From April, 1909, to April, 1910.

—o—

COUNCILLOR G. RILEY, Chairman.

„ J. CHARNOCK.

„ A. HARGREAVES.

„ J. PILKINGTON.

„ J. PROCTER.

„ G. WALSH.

„ J. RILEY.



Health Department.

—o—

MEDICAL OFFICER OF HEALTH :

ALFRED E. TOWNLEY, M.B., Ch.B.

INSPECTOR OF NUISANCES :

G. H. RAWLING, Cert. Royal Sanitary Inst.

DISINFECTOR :

THOMAS BENTLEY.

CARETAKER OF SMALLPOX HOSPITAL :

JAMES CRABTREE.

FOREMAN OF SCAVENGING DEPARTMENT : J. BROADLEY.

To the Chairman and Members of the Urban District Council of Oswaldtwistle.

Gentlemen,

*I have the honour to submit to you
my Sixth Annual Report on the Health
and Sanitary condition of Oswaldtwistle,
for the year ending Dec. 31st, 1909.*



The Township lies between latitude 53 degrees 42 minutes and 53 degrees 45 minutes north, and longitude 2 degrees 21 minutes to 2 degrees 26 minutes west.

Boundaries of the District.			Altitude in feet above sea level along the boundaries.
On the north by the districts of Church and Rishton,			from 400 to 550
On the south by Haslingden and Yate & Pickup Bank			„ 850 to 1225
On the east by Accrington	...	...	„ 446 to 950
On the west by Blackburn	...	...	„ 500 to 850

Area. The Area of Oswaldtwistle comprises 4883 statute acres.

Population. The estimated population is 15,000. The census of 1901 gave a return of 14,192.

Taking the whole of the Township, the above figures give a density of population of 3 per acre, though the Urban portion of the district has a far greater density of population, being about 42 per acre.

				Feet above sea level.
Altitudes.	At the boundary with Church,			
	at the bottom of Union Road	...	the altitude is	423
	At Moscow Mill Street	...	..	450
	Opposite the Town Hall	...	..	483
	At the boundary with Blackburn on Blackburn Road	...	..	490
	At Mother Red Cap Inn, on Blackburn Road	...	..	532
	In New Lane, which is the highest part of the built up portion of the district	...	..	581
	At the centre of Stanhill Village	...	..	598
	At the Shoulder of Mutton Hotel, Cross Edge	...	..	874
	At the National School, which is the highest portion of the Belthorn Village	...	..	1020

The subsoil of the built upon portion of the district is mostly marl and clay. Stanhill Village, Broadfield, and Belthorn Village are mostly upon the grit rock, which crops up to the surface in a number of places. These villages are upon the higher altitudes—from 600 feet to 1000 feet above sea level.

Occupations. The inhabitants are employed at various trades, viz.: Chemical Manufacturing, Cotton Spinning and Weaving, Coal Mining, Paper Making, Calico Printing, and Milk Farming.

A large proportion of the female inhabitants are employed in the cotton industry.

Births. During the year, 354 births were registered; of these, 177 were boys and 177 were girls, equal to a birth rate of 23.60 per 1000 per annum, compared with 379 births, and a birth rate of 25.26 per 1000 per annum in the previous year.

The illegitimate births numbered 16.

The Notification of Births Act, 1907, has not been adopted, though it has been under the consideration of the Council on one or two occasions.

Table of Birth Rates for the last Fifteen years.

Year		Rate per 1000	Year		Rate per 1000
1895	...	29.33	1903	...	26.85
1896	...	31.54	1904	...	21.91
1897	...	28.13	1905	...	23.96
1898	...	30.00	1906	...	25.98
1899	...	25.29	1907	...	25.40
1900	...	26.51	1908	...	25.26
1901	...	26.62	1909	...	23.60
1902	...	27.44			

It will be noticed from the above table that the birth rate for the past year is the lowest, with the exception of the year 1904, during the last 15 years.

Taking the figures for the past 25 years, the birth rate shews an alarming and persistent decline, more clearly demonstrated by comparing the average rates for successive periods of five years, as illustrated in the table below.

Period of 5 Years			Average Birth Rate
1882-1886	...	...	36.0
1887-1891	...	...	33.98
1892-1896	...	...	29.34
1897-1901	...	...	27.31
1902-1906	..	...	25.22
1907-1909 (3 years)	...	...	24.75

The table below gives the birth rates for Oswaldtwistle, and those of the County of Lancashire, and England and Wales respectively, during the eleven years—1898-1908 inclusive.

Birth Rate per 1000 of the Population.

England and Wales.

1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
29.4	29.3	28.5	28.5	28.6	28.4	27.9	27.2	27.0	26.3	26.5

County of Lancashire.

27.62	27.09	26.80	26.57	26.85	26.77	25.56	25.06	24.99	24.23	24.86
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Oswaldtwistle.

30.00	25.29	26.51	26.62	27.44	26.85	21.91	23.96	25.98	25.40	25.26
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Birth Rate per 1000 of the Population.

	1881-5	1886-90	1891-5	1896-1900	1901-5	1906-8
England and Wales	33.50	31.40	30.46	29.39	28.12	26.60
County of Lancashire	—	—	30.51	27.73	26.16	24.69
Oswaldtwistle	36.52	34.04	29.73	28.29	25.35	25.54

The above figures show the decline in the birth rate is not confined to this district, but is general throughout the country. Commenting on this point, the Registrar General in his 68th annual report, says “there are sufficient grounds for stating that during the past 35 years approximately 17 % of the decline in the birth rate (based on the proportion of births to the female population aged 15-45 years,) is due to the decrease in the proportion of married women in the female population of conceptive ages, and about 10 % is due to the decrease of illegitimacy.”

He adds “that of the total number of married women the proportion of those aged 15.25 years was 15.2 per cent. in 1871, 14.8 per cent. in 1881, 13.7 per cent. in 1891, and only 12.4 per cent. in 1901.” The fecundity of the female being at its maximum between 15 and 25 years of age, and the proportion of married women at this age being on the decline, it follows that the birth rate will perforce decline also.

There is no doubt also that drugs and other means aiming at preventing conception are widely employed, and must considerably affect what would be the normal birth rate. This matter is also referred to by the Registrar General in his Annual Report for 1907, in which he states that “apart from any decrease due to changes in the age constitution of the married women of conceptive ages, there is strong ground for the assumption that in varying degree that cause is the deliberate restriction of child bearing on the part of the people themselves.”

Deaths. During the year, 203 deaths were registered in the district—93 males and 110 females, giving a “crude” annual death rate of 13.53 per 1000, compared with 205 deaths, and a “crude” annual death rate of 13.66 per 1000 in the previous year.

In addition to these, 20 “residents”—7 males and 13 females—died in public institutions outside the district, as follows:—

Blackburn Workhouse	...	...	15
„ Infirmary	...	...	3
Accrington Hospital	...	...	1
Lancaster Lunatic Asylum	...	...	1

Therefore the total number of deaths of "residents" is 223—100 males and 123 females, compared with 220 in 1908, an increase of 3.

The death rate for the township, after the above correction, is 14.86 per 1000 per annum, as against 14.66 per 1000 per annum in the previous year.

Table of Deaths during each Month (corrected).

	Males	Females		Total
January	6	13	...	19
February	9	11	...	20
March	13	16	...	29
April	11	10	...	21
May	6	9	..	15
June	13	4	...	17
July	11	10	...	21
August	5	10	...	15
September	4	7	...	11
October	3	9	...	12
November	4	9	...	13
December	15	15	...	30
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Total	100	123		223

Table of Deaths from all causes at subjoined ages.

Under 1 year	1 to 5	5 to 15	15 to 25	25 to 65	65 & over
41	17	7	7	75	76

The following table gives the comparative death rates for England and Wales, the County of Lancashire, and Oswaldtwistle, for the years indicated.

Death Rate per 1000 of the Population.

England and Wales.

1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
17.6	18.3	18.3	16.9	16.3	15.4	16.2	15.2	15.4	15.0	14.7

County of Lancashire.

16.58	17.60	17.19	16.28	15.26	15.22	15.54	14.32	14.62	14.40	14.45
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Oswaldtwistle.

14.3	18.51	19.74	17.52	13.2	15.2	18.76	13.29	16.46	16.08	14.66
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Death Rate per 1000 of the Population.

	1881-5	1886-90	1891-95	1896-1900	1901-5	1906-8
England and Wales	19.4	18.8	18.7	17.74	16.0	15.0
County of Lancashire	—	—	19.07	17.24	15.32	14.49
Oswaldtwistle	20.96	21.44	17.21	17.22	15.59	15.73

Table showing Births, Deaths, and Natural Increase during the last Fifteen Years.

Year	No. of Births	Rate per 1000	No. of Deaths	Rate per 1000	Natural Increase
1895	419	29.33	241	17.2	178
1896	448	31.54	216	15.21	232
1897	422	28.13	275	18.33	147
1898	465	30.00	222	14.32	243
1899	392	25.29	287	18.51	105
1900	411	26.51	306	19.74	105
1901	386	26.62	254	17.52	132
1902	398	27.44	192	13.2	206
1903	392	25.48	222	15.2	170
1904	320	21.91	274	18.76	46
1905	344	23.56	194	13.29	150
1906	382	25.98	242	16.46	140
1907	377	25.40	238	16.08	139
1908	379	25.26	220	14.66	159
1909	354	23.60	223	14.86	131

(a) In the following table, all deaths of residents occurring in public institutions whether within or without the district are included with the other deaths in the column for the several age groups (column 2-8).

(b) Under the heading of diarrhœa are included deaths registered as due to epidemic diarrhœa, epidemic enteritis, infective enteritis, zymotic enteritis, summer diarrhœa, dysentery and dysenteric diarrhœa, choleraic diarrhœa, cholera and cholera nostras.

Deaths from diarrhœa, secondary to some other well defined disease, are included under the latter.

Deaths from enteritis, muco-enteritis, gastro-enteritis, and gastritis, (see under the heading diarrhœal diseases in table of infantile mortality), are included under enteritis and placed immediately below, but separately from, those enumerated under the heading diarrhœa as defined by enumeration above.

(c) Under the heading of cancer and puerperal fever are included all registered deaths from causes comprised within those general terms, thus: under cancer are included deaths from cancer, carcinoma, malignant disease, scirrhous, epithelioma, sarcoma, villous tumour, and papilloma of bladder, rodent ulcer. Under puerperal fever are included deaths from pyæmia, septicæmia, sapræmia, pelvic peritonitis, peri- and endo-metritis occurring in the puerperim.

(d) Under "congenital defects" in table of infantile mortality are included deaths from atelectasis, icterus neonatorum, navel hæmorrhage, malformations, and congenital hydrocephalus.

(e) Under "tubercular meningitis" are included deaths from acute hydrocephalus.

(f) Under "other tubercular diseases" are included deaths from tuberculosis, tuberculosis of bones, joints, and other organs, lupus, and scrofula.

(g) All deaths certified by registered medical practitioners and all inquest cases are classed as "certified," all other deaths are regarded as "uncertified."

Table of Vital Statistics of Whole District during 1909 and previous Years.

Year	Population estimated to Middle of each Year	BIRTHS			Total Deaths Registered in the District At all ages			Deaths of Residents registered in Public Institutions beyond the District			Net Deaths at all ages belonging to the District	
		Number	Rate*	Under 1 year of age Number	Rate per 1000 Births registered	Number	Rate*	Number	Rate*	Public Institutions beyond the District	Number	Rate*
¹	²	³	⁴	⁵	⁶	⁷	⁸	⁹	¹⁰	¹¹		
1899 ...	15500	392	25.29	80	204	—	—	—	287	—	18.51	
1900 ...	15500	411	26.51	73	177	—	—	—	306	—	19.74	
1901 ...	14500	386	26.62	81	210	—	—	—	254	—	17.52	
1902 ...	14500	398	27.44	55	138	—	—	18	192	—	13.20	
1903 ...	14600	392	26.85	52	132	199	13.71	23	222	—	15.20	
1904 ...	14600	320	21.91	61	191	254	17.41	20	274	—	18.76	
1905 ...	14600	344	23.56	49	142	178	12.19	16	194	—	13.29	
1906 ...	14700	382	25.98	69	180.62	223	15.17	21	242	—	16.46	
1907 ...	14800	377	25.40	44	116.71	219	14.79	19	238	—	16.08	
1908 ...	15000	379	25.26	51	134.56	205	13.66	15	220	—	14.66	
Averages for Years												
1899-1908	14830	378.1	25.48	61.5	162.58	—	—	—	242.9	—	16.34	
1909.....	15000	354	23.60	41	115.81	203	13.53	20	223	—	14.86	

* Rates in columns 4, 8, and 11 calculated per 1000 of estimated population.

NOTE.—The Deaths included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The Deaths included in column 10 are the number in column 7, corrected by the addition of the number in column 9.

By the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public Institutions” taken into account for the purposes of these tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Causes of and Ages at Death during Year 1909.

Deaths at the subjoined ages of "Residents" whether occurring
in or beyond the District.

1	2	3	4	5	6	7	8
			1 and	5 and	15 and	25 and	
Causes of Death	All	Under	under	under	under	under	65 and
	Ages	1 year	5	15	25	65	upwards
Smallpox ...	0	0	0	0	0	0	0
Measles ...	0	0	0	0	0	0	0
Scarlet Fever ...	1	0	1	0	0	0	0
Whooping Cough ...	1	0	1	0	0	0	0
Diphtheria (including Mem- braneous Croup)	2	0	1	1	0	0	0
Croup ...	1	0	1	0	0	0	0
Fever { Typhus ...	0	0	0	0	0	0	0
{ Enteric ...	2	0	0	0	0	2	0
{ Other continued	0	0	0	0	0	0	0
Epidemic Influenza	4	0	0	0	0	4	0
Cholera ...	0	0	0	0	0	0	0
Plague ...	0	0	0	0	0	0	0
Diarrhœa ...	6	4	2	0	0	0	0
Enteritis ...	2	2	0	0	0	0	0
Gastritis ...	2	1	1	0	0	0	0
Puerperal Fever ...	0	0	0	0	0	0	0
Erysipelas ...	0	0	0	0	0	0	0
Phthisis (Pulmonary Tuberculosis)	6	0	0	0	3	3	0
Other Tuberculous diseases	5	1	1	1	1	1	0
Cancer, (Malignant disease)	9	0	0	0	0	6	3
Bronchitis ...	35	8	3	0	0	11	13
Pneumonia ...	14	3	0	1	0	5	5
Pleurisy ...	0	0	0	0	0	0	0
Other diseases of Respiratory Organs ...	0	0	0	0	0	0	0
Alcoholism (Cirrhosis of Liver)	1	0	0	0	0	1	0
Venereal diseases ...	1	1	0	0	0	0	0
Premature birth ...	5	5	0	0	0	0	0
Diseases and accidents of parturition ...	1	0	0	0	0	1	0
Heart diseases ...	18	0	0	1	1	10	6
Accidents ...	6	1	2	1	0	1	1
Suicides ..	1	0	0	0	0	1	0
All other causes ...	100	15	4	2	2	29	48
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All causes	223	41	17	7	7	75	76

Table showing the causes of Deaths during the last 14 years.

Causes of Death	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Méasles	0	11	0	1	20	1	1	1	27	0	13	6	2	0
Scarlet Fever	0	6	0	3	5	4	1	3	0	1	0	1	0	1
Whooping Cough	0	14	0	3	0	4	3	0	2	1	4	0	0	1
Diphtheria and Membranous Croup	1	0	2	1	5	12	5	0	0	1	0	3	4	2
Typhus Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid Fever	1	6	7	3	1	3	1	2	7	3	3	1	3	2
Other continued Fever	—	—	—	—	—	—	—	—	0	0	0	0	0	0
Epidemic Influenza	—	—	—	—	—	1	2	—	2	2	1	3	4	4
Cholera	—	—	—	—	—	—	—	—	0	0	0	0	0	0
Plague	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrhoea	12	15	8	8	5	7	1	3	3	5	18	2	10	6
Enteritis	—	—	—	—	—	1	9	10	1	6	9	10	6	2
Puerperal Fever	1	1	0	1	1	0	0	0	0	1	0	4	1	0
Erysipelas	0	2	0	0	1	0	0	0	0	1	0	0	0	0
Phthisis (Pulmonary Tuberculosis)	13	11	7	11	15	9	11	11	14	6	9	12	9	6
Other Tubercular diseases	—	—	—	—	—	19	14	6	13	12	15	11	6	5

Cancer (Malignant diseases)	—	—	—	—	10	5	7	11	16	12	15	19	9
Bronchitis	—	—	—	—	29	18	28	38	27	21	33	25	35
Pneumonia	—	—	—	—	22	12	12	21	13	19	16	10	14
Pleurisy	—	—	—	—	1	1	—	0	0	0	0	0	0
Other diseases of Respiratory organs	—	—	—	—	—	1	4	3	1	5	2	1	0
Alcoholism (Cirrhosis of Liver)	—	—	—	—	1	3	8	2	2	1	2	3	1
Venereal disease	—	—	—	—	—	—	1	1	0	2	0	0	1
Premature birth	—	—	—	—	10	6	6	7	11	9	5	8	5
Diseases and accidents of parturition	—	—	—	—	2	6	3	5	3	2	1	2	1
Heart disease	13	17	18	21	9	12	18	13	13	15	27	15	18
Accidents	6	7	8	5	7	4	5	8	4	6	7	3	6
Suicides	—	—	—	—	—	2	3	4	3	2	1	3	1
All other causes	169	185	172	230	237	101	91	92	62	75	76	86	101
All causes	216	275	222	287	306	254	222	274	194	242	238	220	223

INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated causes in Weeks and Months under One Year of Age.																						
		CAUSE OF DEATH												Total Deaths under 1 Year								
All causes	{	Certified	...	...	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months	2-3 months	3-4 months	4-5 months	5-6 months	6-7 months	7-8 months	8-9 months	9-10 months	10-11 months	11-12 months	38	
		Uncertified	...	...	7	3	0	2	12	2	4	2	2	1	1	5	2	3	2	0	3	3
Common Infectious Diseases	{	Smallpox	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Chickenpox	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Measles	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Scarlet Fever	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diphtheria & Membranous Croup	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Whooping Cough	...	...	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Diarrhoea, all forms	...	...	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	1	4
Diarrhoeal Diseases	{	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
		Gastritis, Gastro-intestinal Catarrh	...	...	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Infantile Death Rate. As will be seen from the tables above, 41 deaths were registered of children under 1 year of age, representing for the year 115.81 deaths per 1000 births, compared with 51 deaths and a mortality of 134.56 per 1000 births in the previous year, and an average of 61.5 deaths and an average mortality of 162.58 per 1000 births for the ten years 1899-1908 inclusive.

Bronchitis has accounted for the largest number of deaths, viz.: 8; diarrhoea has caused 4 deaths, while diarrhoeal diseases as a whole, including such diseases as enteritis, gastro-enteritis, and gastro-intestinal catarrh, &c., have caused 7 deaths. Premature birth has been responsible for 5 deaths, and convulsions the same number. The full details will be found in the table on the two previous pages.

On referring to the table below, it will be seen that the infantile death rate for the year is the lowest of which I have any record.

**Table of Infantile Death Rate for the last
Fifteen Years.**

Year	No. of Deaths	Deaths to 1000 Births	Year	No. of Deaths	Deaths to 1000 Births
1895	67	159	1903	52	132
1896	61	136	1904	61	191
1897	92	163	1905	49	142
1898	73	156	1906	69	180.62
1899	80	204	1907	44	116.71
1900	73	177	1908	51	134.56
1901	81	210	1909	41	115.81
1902	55	138			

On comparing also the average for the last five years with the average for the previous five years, the decrease is very marked, for whereas for the years 1900-1904 the deaths per 1000 births were 169.6, during the five years 1905-1909 the number has fallen to 137.94.

This decline is also noticeable throughout England as a whole with only slight fluctuations, since the year 1889. In reference to this, the Registrar General suggests that it may in part be due to the increasing attention the subject of the waste of infant life has received from all classes of the community; the Medical Officer of Health for the County of Lancashire also points out, however, that the county has lately experienced certain climatic conditions in the form of a series of cool and showery summer seasons, which no doubt have exerted a favourable influence in checking the rise of mortality from diarrhoeal diseases, that usually prove so fatal in the third quarter of the year.

Bronchitis caused 35 deaths, compared with 25 in the previous year, and an average of 27.37 for the eight years 1901-8. Eight were in children under 1 year of age, three from 1 to 5 years, eleven from 25 to 65, and thirteen in persons 65 years of age and upwards. No deaths occurred from the disease between the ages of 5 and 25 years.

Pneumonia caused 14 deaths, compared with 10 in the previous year, and an average of 16.87 for the eight years 1901-1908. Three were in children under 1 year of age, one from 5 to 15 years, five from 25 to 65, and five in persons 65 years of age and upwards. No deaths occurred from this disease between the ages of 1 to 5, and from 15 to 25 years.

Pleurisy. There were no deaths from this disease.

Other Diseases of the Respiratory Organs, excluding Phthisis, caused no deaths, compared with 1 in the previous year, and an average of 2.43 for the seven years 1902-1908.

The total number of deaths, therefore, from respiratory diseases, other than phthisis, is 49, equal to a death rate of 3.26 per 1000 per annum, compared with 36 deaths and a death rate of 2.40 per 1000 per annum in the previous year, and an average of 44.43 deaths and a death rate of 2.96 per 1000 per annum for the seven years 1902 to 1908.

Table of Deaths from Respiratory Diseases (excluding Phthisis) in each Month.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1909	3	7	6	4	6	5	5	0	1	2	4	6	49
1908	6	5	5	2	4	0	0	0	4	1	1	8	36

Table of Death Rates from Respiratory Diseases (excluding Phthisis) for the last Eight Years.

Year	Deaths	Death Rate	Year	Deaths	Death Rate
1902	32	2.20	1906	45	2.72
1903	44	3.01	1907	51	3.44
1904	62	4.24	1908	36	2.40
1905	41	2.74	1909	49	3.26

The Seven Principal Epidemic or Zymotic Diseases, viz.:—smallpox, measles, scarlet fever, diphtheria and membranous croup, whooping cough, fever, (including enteric, typhus, and continued fever,) and diarrhœa, caused 12 deaths, equivalent to a zymotic or epidemic death rate of 0.80 per 1000 per annum, as against 19 deaths and a death rate of 1.26 per 1000 in the previous year.

The following table shows the number of deaths from these diseases:—

		Deaths 1909	Deaths 1908
Smallpox	...	0	0
Measles	...	0	2
Scarlet Fever	...	1	0
Diphtheria	...	2	4
Enteric Fever	...	2	3
Whooping Cough	...	1	0
Diarrhœa	...	6	10
Total	...	12	19

Table of Zymotic Death Rate for the last Fifteen Years.

Year	Deaths per 1000	Year	Deaths per 1000
1895	1.61	1903	.41
1896	.21	1904	2.67
1897	2.53	1905	.89
1898	1.03	1906	2.58
1899	.77	1907	.87
1900	2.45	1908	1.26
1901	1.65	1909	.80
1902	.75		

As regards the deaths from diarrhœa, it should be pointed out that the Local Government Board in their statistical tables in 1908 reverted to the method adopted by them prior to 1906. For the years 1906 and 1907, the Board's table required that all deaths **under one year of age** registered as due to enteritis, muco-enteritis, gastro-enteritis, gastritis, and gastro-intestinal catarrh, should be classified as "diarrhœa," and consequently all such deaths were included in the epidemic death rate.

This reversion to the old methods has necessitated the re-calculation of the epidemic rates for 1906 and 1907, and has required a deduction from the total diarrhœa deaths in 1906 of 8, and in 1907, 5 deaths ascribed to enteritis, &c.

**Cases of Infectious Diseases notified and Deaths
therefrom during the Year 1909.**

Cases notified in whole district.—At ages—years.

Notifiable Disease	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards	Deaths
Smallpox	0	0	0	0	0	0	0	0
Cholera	0	0	0	0	0	0	0	0
Diphtheria, including Membranous Croup	11	0	4	5	2	0	0	2
Erysipelas	9	0	0	0	0	8	1	0
Scarlet Fever	96	0	18	63	12	3	0	1
Typhus Fever	0	0	0	0	0	0	0	0
Enteric Fever	9	0	0	1	4	4	0	2
Relapsing Fever	0	0	0	0	0	0	0	0
Continued Fever	0	0	0	0	0	0	0	0
Puerperal Fever	0	0	0	0	0	0	0	0
Plague	0	0	0	0	0	0	0	0
Totals ...	125	0	22	69	18	15	1	5

Smallpox. No cases of this disease occurred during the year.

Diphtheria. 11 cases were notified and 2 ended fatally, compared with 35 cases and 4 deaths in 1908. No cases occurred in children under 1 year of age, 4 were in children between 1 and 5 years, 5 between 5 and 15 years, and 2 between 15 and 25 years.

The disease was reported in eight months out of the twelve, as follows :—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0	1	0	1	1	3	1	0	1	0	1	2

**Tables of cases of Diphtheria, and Deaths therefrom,
during the last Twelve Years.**

Year	Cases Notified	Deaths	Year	Cases Notified	Deaths
1898	4	1	1904	3	0
1899	—	1	1905	4	1
1900	—	5	1906	10	0
1901	30	12	1907	10	3
1902	14	5	1908	35	4
1903	6	0	1909	11	2

The number of cases of diphtheria reported show a marked decrease on the previous year, but it must be added that, from my own personal experience, there have been numerous cases of sore throat, which, not being severe, the patients have not called in a medical man; or if one has been consulted, the physical signs may have been so modified that a diagnosis of diphtheria could not be made, except by bacteriological examination. I should like to see established in this township an arrangement with one of the Pathological Laboratories, by which, at the Council's expense, reports could be obtained by the medical men of the results of a bacteriological examination of "swabs" from the throat of any suspicious case. By this means, many of the slighter cases, which can only be diagnosed by this method, and which are just as infectious as the severe cases, would come under control of the Health Department, could be isolated, and other suitable measures taken to prevent the person spreading the disease.

Erysipelas. Nine cases were notified and no deaths resulted, compared with eight cases and no deaths in the previous year.

Eight cases were in persons between 25 and 65, and one case in a person over 65 years old. No cases occurred under the age of 25 years.

It was reported in seven months out of the twelve as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0	1	2	0	1	0	1	1	0	0	1	2

Table of cases of Erysipelas notified, and Deaths therefrom, during the last Nine Years.

Year	Cases Notified	Deaths	Year	Cases Notified	Deaths
1901	10	0	1906	14	0
1902	6	0	1907	10	0
1903	9	0	1908	8	0
1904	8	0	1909	9	0
1905	13	1			

In the month of April a woman suffering from this disease, owing to its severity and her destitute condition, was removed to the workhouse.

Scarlet Fever. 96 cases of this disease occurred, only one of which however resulted fatally, compared with twelve cases and no deaths in 1908.

18 cases were in children between 1 and 5 years of age, 63 between 5 and 15, twelve between 15 and 25, and three were over 25 years of age.

The following table shows the number of cases reported in each month :—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3	6	14	15	21	11	4	4	3	7	7

Table of cases of Scarlet Fever notified, and Deaths therefrom, during the last Twelve Years.

Year	Cases Notified	Deaths	Year	Cases Notified	Deaths
1898	13	0	1904	16	0
1899	94	3	1905	40	1
1900	—	5	1906	40	0
1901	71	4	1907	22	1
1902	45	1	1908	12	0
1903	35	3	1909	96	1

As will be seen from the tables above, the number of cases of scarlet fever which have occurred during the year has been unusually heavy, being the highest for any year of which I have particulars; though the mortality has been very small, only one death having resulted.

It was present throughout the year, the epidemic reaching its height in the month of June.

On June 22nd, owing to the rapid increase in the number of cases, I deemed it advisable to close two shops in which cases existed, there being strong evidence that they were causing the disease to spread. These premises were 1, Vine Street, in which there were three cases; and 369, Union Road, in which there were two cases.

On June 23rd, the Health Department were caused a considerable amount of trouble and anxiety owing to clothes from 1, Vine Street, having been received into the Oswaldtwistle Laundry; I immediately closed the works and had them thoroughly disinfected.

On May 27th and June 28th, I submitted special reports to the Health Committee on the epidemic.

The need for an Isolation Hospital has been keenly felt during this outbreak; in numerous instances we have had two, three, and even four cases at once in small cottage houses, in which, owing to the number of inmates, proper isolation was altogether impossible.

Typhoid or Enteric Fever. Nine cases of this disease were notified, two proving fatal, compared with seven cases and three deaths in the previous year.

One case occurred from 5 to 15 years of age, four from 15 to 25, and four from 25 to 65.

It was reported in six months out of the twelve as follows:—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	4	0	1	0	0	1	0	0	0	1

Table of cases of Typhoid Fever notified, and Deaths therefrom, during the last Twelve Years.

Year	Cases Notified	Deaths	Year	Cases Notified	Deaths
1898	27	7	1904	14	7
1899	16	3	1905	9	3
1900	—	1	1906	11	3
1901	9	3	1907	4	1
1902	9	1	1908	7	3
1903	7	2	1909	9	2

Puerperal Fever. No cases of this disease were reported during the year, compared with one case and one death in 1908. This is the first time since 1903 that the Township has been free from this deadly fever, no doubt due in a great measure to the vigilance of the Lady Inspector to the Midwives' Board in seeing that the midwives exercise greater care and cleanliness in their calling.

There are now six midwives under the Midwives' Act, 1902, residing in the Township, an increase of one over last year. One only of these is properly trained, and certificated by examination, the rest having their names on the County Register by virtue of their having been practising before the passing of the Act.

Table of cases of Puerperal Fever notified, and Deaths therefrom, during the last Seven Years.

Year	Cases Notified	Deaths	Year	Cases Notified	Deaths
1903	0	0	1907	6	4
1904	1	0	1908	1	1
1905	2	1	1909	0	0
1906	1	0			

Measles. A few cases of this disease have occurred, but not being notifiable, it is impossible to estimate what the actual number was. No deaths resulted however.

Table of Deaths from Measles for the last
Twelve Years.

Year	Deaths	Year	Deaths
1898	0	1904	27
1899	1	1905	0
1900	20	1906	13
1901	1	1907	6
1902	1	1908	2
1903	1	1909	0

Whooping Cough. The disease also is not notifiable, so that it is impossible to estimate the number of cases which occurred. Nevertheless it was more or less in evidence during the year, and one death has been attributable to it.

Table of Deaths from Whooping Cough for the
last Twelve Years.

Year	Deaths	Year	Deaths
1898	0	1904	2
1899	3	1905	1
1900	0	1906	4
1901	4	1907	0
1902	3	1908	0
1903	0	1909	1

Diarrhœa has caused six deaths—four being in children under 1 year of age, and two from 1 to 5 years of age. Two deaths also occurred from enteritis, both being children under 1 year of age; but as these are included, by order of the Local Government Board, together with diarrhœa under the general heading diarrhœal diseases in the table of infantile mortality, it will be seen from that table that the total deaths from this group are eight, six being children under 1 year of age.

Table of Deaths from Diarrhœa for the last
Twelve Years.

Year		Deaths	Year		Deaths
1898	...	8	1904	...	3
1899	...	8	1905	...	5
1900	...	2	1906	...	18
1901	...	7	1907	...	2
1902	...	1	1908	...	10
1903	...	3	1909	...	6

Phthisis and other Tubercular Diseases. Six deaths were registered as due to phthisis and five to tubercular disease of organs other than the lungs, making a total of eleven deaths from tuberculosis, compared with fifteen in 1908.

One death occurred under 1 year of age, one from 1 to 5 years, one from 5 to 15 years, four from 15 to 25 years, and four from 25 to 65 years.

One case only was notified under the Public Health (Tuberculosis) Regulations, 1908.

The death rate from phthisis is 0.40, compared with 0.60 in the preceding year.

Table of Deaths from Phthisis during the
last Fifteen Years.

Year	Deaths	Death Rate	Year	Deaths	Death Rate
1895	10	0.71	1903	11	0.75
1896	13	0.91	1904	14	0.95
1897	11	0.73	1905	6	0.41
1898	7	0.45	1906	9	0.61
1899	11	0.71	1907	12	0.81
1900	15	0.96	1908	9	0.60
1901	9	0.62	1909	6	0.40
1902	11	0.75			

The death rate from tubercular disease of organs other than the lungs is 0.33, compared with 0.40 in 1908.

Deaths from Tubercular Diseases of Organs other than the Lungs during the past Nine Years.

Year	Deaths	Death Rate	Year	Deaths	Death Rate
1901	19	1.31	1906	15	1.02
1902	14	0.96	1907	11	0.74
1903	6	0.41	1908	6	0.40
1904	13	0.89	1909	5	0.33
1905	12	0.82			

It is highly satisfactory to note, by reference to the two tables above, that the death rate from tuberculosis is the lowest on record. This improvement is general throughout the country as shewn in the statistics of the Registrar General for England and Wales, given below :—

Quinquennial Periods	Mortality per Million
1882—1886	1813
1887—1891	1607
1892—1896	1403
1897—1901	1314
1902—1906	1192
1907	1140

Although there is no doubt from the table above that the deaths from tuberculosis are on the decrease, the conquest over the disease would be much sooner accomplished if the public would only recognise more fully that the malady is infectious, and consequently more or less preventable. The germs of the disease remain potent in all probability for years, and are therefore a source of extreme danger to anyone using rooms previously occupied by a consumptive patient. It is most necessary then, after a death from tuberculosis, or if a patient removes from a house, in the interest of those who may subsequently reside in the premises, to have them carefully disinfected. The Health Department are only too pleased to carry out this work at any time on request.

Epidemic Influenza has occasioned four deaths, compared with four in the previous year. All the deaths were in persons over 25 years of age.

Table of Deaths from Epidemic Influenza during the last Nine Years.

Year	Deaths	Year	Deaths
1901	1	1906	1
1902	2	1907	3
1903	—	1908	4
1904	2	1909	4
1905	2		

Cancer has caused nine deaths, equivalent to an annual death rate of 0.60 per 1000, compared with 19 deaths and an annual death rate of 1.26 per 1000 in 1908.

Six of the deaths were in persons between 25 and 65 years of age, and three were over 65 years old.

The following Table shows the details of Deaths
due to Cancer.

	Males	Females	Total
Carcinoma (Schirrhous) of Breast	0	1	1
„ of Stomach ...	2	1	3
Cancer of Liver ...	0	1	1
„ Æsophagus ...	1	0	1
„ Tongue ...	1	0	1
„ Bladder ...	1	0	1
Sarcoma of Nose ...	0	1	1
	<hr/> 5	<hr/> 4	<hr/> 9

Table of Deaths from Cancer during the
last Nine Years.

Year	Deaths	Death Rate	Year	Deaths	Death Rate
1901	10	0.68	1906	12	0.81
1902	5	0.34	1907	15	1.01
1903	7	0.47	1908	19	1.26
1904	11	0.75	1909	9	0.60
1905	16	1.09			

Table showing Mortality Statistics in certain Towns in 1909.

	Estimated Population	Birth Rate	Death Rate (crude)	Death Rate (corrected)	Infant Deaths per 1000 Births	Zymotic Death Rate	Respiratory Death Rate	Phthisis Death Rate	Death Rate from other forms of Tuberculosis	Cancer Death Rate	Average Death Rate for 10 years 1899-1908
Accrington	46,500	20.34	13.93	14.60	123	0.75	3.22	0.73	0.38	0.96	14.75
Blackburn	136,135	23.0	17.1	16.4	127.4	1.5	3.6	0.9	0.4	0.7	17.8
Blackpool	61,450	16.70	14.06	12.68	103.31	0.99	2.28	0.73	0.28	0.96	13.04
Burnley	106,267	24.9	—	16.0	157	1.42	3.83	1.12	0.58	0.55	18.9
Church	6,950	22.01	14.3	15.9	104.5	0.85	3.15	0.85	nil	1.28	16.4
Clayton-le-Moors	9,100	22.4	13.0	14.0	117	0.7	2.8	1.0	0.43	0.5	16
Colne	26,725	19.86	11.18	12.94	105	4.60	1.83	0.82		—	14.30
Darwen	42,668	19.12	13.22	14.44	127	1.10	3.40	0.82	0.26	0.94	14.67
Great Harwood	14,000	21.2	9.8	10.6	77.1	0.78	2.57	0.64		0.64	13.3
Lytham	10,210	13.6	11.6	10.7	100	0.5	3.4	1.0	0.3	0.7	13.6
Padiham	13,900	24.60	12.08	14.82	154.97	0.36	2.94	1.08	0.14	0.64	16.56
Preston	118,519	25.54	14.52	—	137	1.31	2.70	0.90	—	0.76	17.64
Oswaldtwistle	15,000	23.60	13.53	14.86	115.81	0.80	3.26	0.40	0.33	1.60	16.34

**Acts of Parliament relating to Sanitary matters
adopted by the Council.**

	Adopted
(1) The Infectious Disease (Notification) Act, 1889,	Nov. 11th, 1895.
(2) The Public Health Acts Amendment Act, 1890, Parts ii, iii, iv, and v,	Dec. 8th, 1895.
(3) The Infectious Disease (Prevention) Act, 1890,	Dec. 14th, 1903.
(4) The Public Health Acts Amendment Act, 1907, Parts ii, iii, iv, (certain sections thereof) v, vi, vii, (except sections 82 and 83) viii, ix, and x, (sections 93 and 95) ...	July 13th, 1908.

**Bye-Laws relating to Sanitary matters adopted
by the Council.**

	Adopted
(1) Slaughterhouses	March 21st, 1864.
(2) Snow, Filth, and Keeping of Animals ...	March 21st, 1864.
(3) Cleansing Footway and Pavements ...	March 21st, 1864.
(4) Common Lodging-houses	Dec. 1st, 1884.
(5) Houses let in Lodgings, or occupied by mem- bers of more than one family ...	Dec. 1st, 1884.
(6) Dairies, Cowsheds, and Milkshops ...	Aug. 18th, 1902.
(7) New Streets and Buildings ...	March 14th, 1904.

House Accommodation. A considerable number of cottages have been erected during the year, chiefly in the following districts:—Blackburn Road, Paddock Street, Fielding Lane, Margaret Street, and Stanhill Lane. By far the greater number of houses are built of stone.

One case of overcrowding has come under the notice of the Health Department. The number of inmates was reduced, and the sleeping accommodation rearranged.

No houses have been condemned during the year as being unfit for human habitation, but several were found which were structurally defective, and the owners were instructed to alter and improve them. Details of these will be found in the Sanitary Inspector's Report.

35 privies have been converted to the water system after notices from the Health Office.

There are no Common Lodging-houses in the Township.

During the course of erection all new houses are inspected, and during the laying of the drains the fall in the pipes and cementing of the joints is carefully examined, also the fitting up of water closets and baths.

A minimum of 150 superficial feet of yard space is given to each house, and a back road 12 feet wide is provided behind each block of buildings.

It is to be regretted that so few of the houses in the district are fitted with baths; the number of cottages so provided is very limited indeed, and I should be pleased to see them more general, especially as we have no public baths.

Bye-laws regarding houses let in lodgings or occupied by members of more than one family, were adopted by the Council on December 1st, 1884, and Bye-laws for Common Lodging-houses on the same date.

Water Supply. The Township is supplied with water by two reservoirs: Jackhouse—36 ft. 9 in. deep, capacity 68,000,000 gallons, and Cobbs—capacity 20,000,000 gallons. Jackhouse Reservoir is 635 feet, and Cobbs Reservoir 791 feet above sea level; the latter was enlarged, deepened, and thoroughly cleaned three years ago.

In addition to these, there is a separate reservoir for Belthorn village, described in detail below.

The estimated population supplied by these reservoirs is as follows:—

In Oswaldtwistle	...	13,912
In Church Council District	...	560
Belthorn Village. Oswaldtwistle	...	528
Total		15,000

The Jackhouse and Cobbs Reservoirs will hold a supply, after allowing 10 million gallons for bottom water, equal to 156 days' consumption.

The drainage area to the Jackhouse and Cobbs Reservoirs varies in elevation from 630 feet to 1000 feet above the sea. Certain portions of the moorland from which the water would naturally flow to the reservoirs of the Council have been cut off, and the water diverted by intercepting open sluices and drains in the direction of Cocker Lumb and Cocker Brook, leaving the available area from which water is collected 240 acres. Certain portions of the drainage area or gathering ground have a sharp slope, from which the water flows quickly during times of storm and heavy rainfall; other portions of the area have a gentle slope from which the water will not flow quickly, except at times of heavy rainfall.

In the year 1907, the Council acquired Brewer Lot and White Syke Farms, situated within the gathering grounds of the waterworks.

Standerley Farm and some cottages at Cocker Brook were also purchased in 1908, at a cost of £2,010. By the acquisition of these premises, the Council are in a position to prevent pollution of the water courses feeding the reservoirs.

During the year a bore hole has also been put down at White Syke Farm.

Owing to the unsatisfactory condition of the water supplied to the Township in the first half of last year, I had samples from both Jackhouse and Cobbs Reservoirs analysed at the Public Health Laboratories, Manchester, and submitted a report, together with Professor Delépine's opinion, to both the Health and Waterworks Committees in the month of September, and urged your Council to construct filters for both reservoirs without delay.

Application was made to the Local Government Board last year, for sanction to borrow £10,866 for the purposes of constructing sand filters for both reservoirs. Subsequently the Council, after visiting the waterworks of several neighbouring authorities, decided to substitute in respect of Jackhouse Reservoir a scheme of mechanical filtration. The Local Government Board have since informed the Council that they are advised that, where water is polluted by human beings and animals, mechanical filtration is not efficient. I understand that, while the Council are prepared to take the advice of the Board as to the superior efficacy of sand filters, they consider at the same time that the Board should modify their attitude towards the Council, in regard to the necessity for purchasing additional lands in the gathering ground of the waterworks.

The reservoir for Belthorn village is 1058 feet above sea level. There are two filters with an area of 80 superficial yards. They are together capable of filtering 24,000 gallons of water per day, which is equal to twice the quantity of water delivered to the village; so that when one of the filters is stopped for resting, the other will filter sufficient water for the daily supply. The total depth of filtering material is 4 feet.

Also there are two service water tanks with valves fixed to work each tank separately. The two tanks have a holding capacity of 12,000 gallons, working them at 4 feet deep. This is equal to one days' supply.

The filtered water supplied to the village is of good quality.

The capacity of the reservoir is 800,000 gallons, which is equal to 80 days' supply; but the supply of water to the reservoir is assisted by the springs on the gathering ground.

The supply of spring water is required, not only to keep up an ample supply of water to the village, but also to improve its quality for domestic purposes; since the water coming from the upland moor has a distinctly acid reaction, being therefore possessed of lead dissolving powers, and liable to act upon the lead service pipes to the houses.

In wet weather the reservoir is full, most of the drainage water from the moors is therefore turned away to waste, and not allowed to enter the reservoir.

Previous to these waterworks being constructed, the residents in the village had to rely for water from wells. It was found that one well that supplied the greater portion of the residents was polluted with drainage from leaky privy pits, and the water in another well was polluted with surface water from meadow land.

Factories and Workshops. There are 28 factories and 66 workshops. They have been inspected on various occasions, and complete particulars of the matters required to be complied with under the Factory and Workshop Act, 1901, have been taken and entered in the Workshops' Record Book.

Rooms limewashed	...	...	8
Fixed means of ventilation fixed	...	...	1
Nuisances abated principally in regard to			
Sanitary conveniences	...	...	6
New W.C's constructed	...	...	1
W.C's repaired	...	...	2

Notifications under sections iv-xiv of the Factory & Workshop Act, 1901, have been received as follows:—

- (1) Workshop—244, Union Road. No sanitary accommodation,—one W.C. and ashpit provided.
- (2) Workshop—113, Union Road. Sanitary accommodation not provided,—W.C. was put in working order.
- (3) Royal Oak Mill. Foul urinal,—this was demolished. (The date of the Inspector's complaint being Decr. 31st, 1908, this item was included in last year's report.)

Two notifications of new workshops were received from H.M. Inspector of Factories.

The Public Health Acts Amendment Act, 1890, part ii of which has reference to Factories and Workshops, was adopted on the 9th day of Dec., 1895.

The administration of the Factory & Workshop Act, 1901,
in connection with

Factories, Workshops, Workplaces, & Homework

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or
Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
Factories (Including Factory Laundries)	5	1	0
Workshops (Including Workshop Laundries)	107	5	0
Workplaces (Other than Outworkers' premises)		2	0
Total	112	8	0

2.—DEFECTS FOUND.

Particulars					Number of Defects			Number of Prosecutions
					Found	Rem- edied	Refer- red to H.M. Ins- pector	
(1)					(2)	(3)	(4)	(5)
<i>Nuisances under the Public Health Acts :—*</i>								
Want of cleanliness					8	8	—	—
Want of ventilation					1	1	—	—
Overcrowding					—	—	—	—
Want of drainage of floors					1	1	—	—
Other nuisances					2	2	—	—
Sanitary accommodation	{	insufficient .. .. .		..	1	1	—	—
		unsuitable or defective .. .. .		..	1	1	—	—
		not separate for sexes .. .. .		..	—	—	—	—
<i>Offences under the Factory & Workshop Act :—</i>								
Illegal occupation of underground bakehouses (s. 101)					—	—	—	—
Breach of special sanitary requirements for bake- houses (ss. 97 to 100)					1	1	—	—
Other offences (<i>Excluding offences relating to outwork.</i>)					—	—	—	—
Total					15	15	—	—

* Including those specified in sections 2, 3, 7, and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

3.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Bakers and Confectioners	10
Dressmakers and Milliners	7
Tailors	5
Bootmakers and Cloggers	13
Joiners	3
Plumbers	2
Painters	4
Smiths	3
Wheelwrights	3
Tinsmiths	2
Laundries	2
Miscellaneous	12
Total number of Workshops on Register ..	66

4.—OTHER MATTERS.

Class. (1)	Number. (2)
<i>Matters notified to H.M. Inspector of Factories:—</i>	
Failure to affix Abstract of the Factory & Workshop Act (s. 133) ..	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	3
Notified by H.M. Inspector	3
Reports (of action taken) sent to H.M. Inspector ..	3
Other	12
<i>Underground Bakehouses (s. 101):—</i>	
Certificates granted during the year	0
In use at the end of the year	0

Dairies, Cowsheds, and Milkshops. The dairies and cowsheds are receiving the special attention of the Health Department, and a complete register is being compiled, giving full particulars of each, and defects requiring remedying. As the number of farms in the district is considerable, it will take some years to complete the register.

Up to the present, 82 cowsheds, containing 535 head of cattle, and 34 dairies have been inspected and re-visited, and full particulars and defects entered in the register.

Bye-laws were adopted by the Council on August 18th, 1902, for regulation of dairies, cowsheds, and milkshops, but I am afraid these have not been very strictly enforced in the past. With very few exceptions, the air space is insufficient in the shippons, and falls far short of the 800 cubic feet per cow laid down in these regulations.

In many cases also limewashing and general cleanliness were found to have been neglected, and will require stricter supervision in the future.

The drainage in most of the shippons was found to be very defective, and the condition of the farmyards in many instances was unsatisfactory. These matters are receiving attention.

Isolated dairies are gradually replacing those opening from the interior of the farmhouses; of the 34 inspected up to the present, 15 are isolated.

There are no milkshops in the district.

Bakehouses. The bakehouses have been inspected, and rules have been drawn up and distributed to each bakehouse, shewing the regulations to be observed. All have been found satisfactory, with one exception, in which limewashing was necessary.

There are now no underground bakehouses in the Township.

Slaughterhouses. There are 8 licensed slaughterhouses in the district, and 5 at the public abattoirs. They are all now in a satisfactory condition.

Offensive Trades. Complaints are still occasionally received of the smells arising from the Nook Bone Works; alterations were carried out in 1908, as detailed in my report for that year, and a decided improvement has followed. A certain amount of

nuisance is inseparable from works of this description, but it is the duty of the Council to insist on everything being done to mitigate the nuisance as far as possible. The Health Department has always found the owners willing to assist in this respect.

Complaints have also been received of the smell arising from Messrs. Bowdler and Bickerdike's Chemical Works. The Sanitary Inspector and I, on visiting the place, found a jet of offensive waste steam issuing from one of the pipes; this has now been carried into the chimney stack, and the nuisance thereby much reduced.

Black Smoke. The time limit allowed for the emission of black smoke is 8 minutes per hour.

The Sanitary Inspector has made numerous observations during the year, and in several instances the limit was exceeded. The firms at fault have had their attention drawn to the matter, but no prosecutions have been instituted.

Removal & Disposal of House Refuse. The work continues to be carried out by the employees of the Council, the contents of the ashes places being conveyed in covered carts to a "tip" in the fields outside the built-up portion of the district. I think, however, that the time has come when the Council ought to consider the provision of a refuse destructor.

During the year, 5336 loads of domestic refuse and 890 loads of street sweepings were removed, as follows :—

	Domestic Refuse Loads	Street Sweepings Loads		Domestic Refuse Loads	Street Sweepings Loads
January	510	58	August	405	77
February	528	75	September	490	65
March	532	71	October	406	71
April	382	83	November	365	95
May	500	90	December	403	52
June	420	72			
July	395	81		<hr/> 5336	<hr/> 890

Disposal of Excrement. Considerable progress has been made in laying down sanitary pipe sewers with ventilating manholes in place of the old stone soughs in back roads, and in converting the old privies to the water closet system, though there still remains a number that require attention.

During the past year, 35 privies have been converted to the water system, after notices had been sent from the Health Office.

Disinfection in all cases of notifiable infectious diseases is carried out as efficiently as possible in the absence of a fever hospital. Cases are isolated, as far as we are able, in the premises in which they occur—always a difficult matter in cottage houses. Printed forms with the requisite precautions for each disease, and disinfectants, are supplied. At the end of the illness, the rooms are thoroughly disinfected with formic aldehyde and sulphur fumes, and the bedding sterilised by heat at the gasworks.

105 houses have been disinfected during the year, also one laundry, after infected clothing had been received there (see under heading of “Scarlet Fever.”)

During the latter part of the year, the steam disinfecting apparatus has been overhauled, and a better steam supply laid on. I have not yet tested the temperature now obtainable, but have no doubt it will be much higher than formerly.

Smallpox Hospital. The hospital is now ready to accommodate five patients, practically at a moment’s notice, while in case of a serious outbreak, ten could be admitted.

The present caretaker is James Crabtree, of Shed Street. He has only held the post a short time, but so far has discharged his duties most satisfactorily.

Schools. There are eleven day schools in the township, and one just outside the district, where Belthorn children attend. They have all been disinfected twice, and some three times, during the year, with formic aldehyde and sulphur fumes. Attention has also been paid to the water closets and drains.

None of the schools have been closed on account of infectious diseases, but exclusion of children from infected houses has been practised.

Food Inspection. As stated above, there are three licensed slaughterhouses and five at the public abattoirs. They are visited at time of slaughtering, and the carcasses examined, though we have no one holding a special certificate in meat inspection. None of the carcasses were found to be tuberculous.

One carcase of a sheep and a portion of a cow were condemned for other reasons at the public slaughterhouse, and afterwards destroyed.

Sewerage, Drainage, and Sewage Disposal. The built-up portion of the district is gradually becoming sewered throughout with sanitary glazed pipes with cemented joints, and adequate ventilating manholes and lampholes, and many of the overhead wire standards for the tramways have been connected with the sewers and used for further ventilation.

In recent years, a large number of house drains have been overhauled in converting the privies to the water closet system, the work of relaying the drains being under the supervision of the Council.

In the case of new property, the drains are all examined by the Sanitary Inspector before being passed, strict attention being paid to the joints and the fall of the pipes.

Downspouts, gullies, and slop-stone pipes receive particular attention, and in cases where the dish-stones are not firmly bedded in cement, or the slop-pipes are defective, allowing waste water to find its way into the foundations, steps are immediately taken to have the defects remedied.

Three years ago, during the repaving of Union Road after the laying of the tramlines, a number of old stone gullies were taken up and glazed drain pipes laid in their places.

The sewage is dealt with at the Outfall works in open septic tanks—five in number, two of which are used as storm tanks, and then passed through nine feet deep revolving sprinkler filters, the final treatment being upon the land filter area.

During the year, the Local Government Board has sanctioned the expenditure of £2600 for extensions, &c., at the sewage works. The greater part of this work has now been carried out, additional sprinklers and filters having been laid down.

The question of the sewerage of Belthorn has been under consideration during the year, and application was made to the Local Government Board in 1908 for sanction to borrow £1280 to purchase New Hall Head Farm to construct sewage works for that village. The Board, however, refused the application on account of the unsuitability of the land for irrigation, and recommended that the Council should acquire a small piece of land in a suitable locality, and provide tanks

and artificial filters to deal with the sewage; also that the Council should complete the sewerage of the village, and carry out necessary work for making the existing sewers efficient. The matter is in abeyance for the present.

There are now 2507 houses, 8 schools, and 19 cotton mills and factories provided with water closets, and whenever possible, only closets on this system are now allowed to be erected.

Where the dry methods are still in use and are foul, notices are served on the owners to convert them to water closets.

Observations. The numerous tables included in this report require very little further explanation, since they show in a clear and concise form the health statistics and chief features relating to the sanitary conditions of the Township during the past year. Some of them have been compiled in accordance with the requirements of the Local Government Board, and others designed by myself to give at a glance our position in sanitary matters, compared with previous years.

It may be noted in passing, however, that the infant death rate, the zymotic death rate, tuberculosis death rate, and the cancer death rate, all shew a substantial decrease, the complete death rate for all diseases remains about the same, but the birth rate has fallen considerably, being the lowest, with one exception, during the last 15 years. This fact is brought out most noticeably in the tables on page 8.

I think that, on the whole, the health of the Township, as reflected in the statistics for the past year, is highly satisfactory, the marked reduction in the deaths from tuberculosis, infectious diseases, and in the infantile mortality are matters on which the Council can congratulate themselves, and indicate that money spent and labour expended towards improving the sanitary condition of the Township are not in vain.

In previous reports, I have pointed out how few of the houses are provided with baths, and on this account I feel it my duty to urge upon your Council the need for Public Baths. I feel sure they would be appreciated, and are, moreover, almost a necessity in the interest of public health.

During the past year, Rhyddings Hall and ground connected were acquired for a Public Park, and have been much appreciated during the summer.

I should like to draw the attention of the Council to the urgent need for better office accommodation for the Sanitary Inspector. The present arrangement leaves much to be desired, and since public health is so important a matter, it is absolutely necessary to have adequate provision for successfully carrying on the work.

In conclusion, I beg to thank the Clerk, the Surveyor, the Chairman and Members of the Health Committee, and the Sanitary Inspector for many kindnesses and assistance in my work during the year.

I am, gentlemen,

Your obedient servant,

ALFRED E. TOWNLEY, M.B., Ch.B.,

Medical Officer of Health.

February, 1910.

Annual Report of the INSPECTOR OF
NUISANCES for the Oswaldtwistle Urban
District Council, for the year ending
December 31st, 1909.

To the Chairman and Members of the
Health Committee.

Mr. Chairman and Gentlemen,

*I have pleasure in submitting to you
my report on the work done in the Health
Department during the year 1909; this
being my Second Annual Report.*

Inspection. Periodical inspection of the district has been made, and house inspection—chiefly in the following parts of the town: Ash Street, Thomas Street, James Street, Simpson Street, Bent Street, Kay Street, Duncan Square, Benjamin Row, Broadfield Street, Broadfield Terrace, High Street, Town Bent, Walkden Barn, Commercial Street, Roe Greave Road, Aspen Lane, Stanhill, Knuzden, and Belthorn.

Old Privies. Many old privies still exist, and nuisances frequently occur from structural defects and from the excreta chamber; these are now receiving special attention and are gradually being converted into water closets where possible. The work of laying new drains and conversions of privies into water closets is carefully inspected before being passed, and the drainage work as a rule is well done, though in some cases it is necessary to make from 10 to 12 visits before the work necessary for the abatement of a nuisance is satisfactorily completed. This remark also applies to the inspection of the drain connections to new property.

Where possible, after notices of existing nuisances have been given, I have met the property owner at the premises complained of, and the result has been highly satisfactory, much extra work having been arranged for in this way.

Drain Testing. In two instances a test of drains has been made. Defects were found in both cases which were afterwards remedied.

Infectious Disease. 484 visits have been made to infected houses, and 105 houses have been fumigated. In each case reported, the infected house has been inspected, instruction given *re* isolation of patient, a printed form with the requisite precaution for each disease, and disinfectants supplied. After the recovery of the patient, the premises have been disinfected with formic aldehyde vapours, and the bedding and clothing dealt with in the disinfecting chamber, first with steam and then dry heat.

During each holiday the whole of the day schools have been disinfected, the inside walls and floors being sprayed with formic aldehyde solution, and the water closets, urinals, and drains disinfected.

Hospital. The hospital is kept clean and in a satisfactory condition, and can be ready for occupation, if necessary, in an hour's time. In September last, James Crabtree, of Shed Street was appointed caretaker and cleaner of same.

Black Smoke. Observations have been taken of chimneys emitting black smoke at various times, and in five instances the owners of the premises were written to calling their attention to the amount of black smoke being emitted. One firm were written to a second time and cautioned, but no

prosecutions were instituted. A question frequently asked is: what nuisance is caused by the smoke? First—it means a loss to the manufacturers, for it has been proved repeatedly that each of the bursts of thick black smoke issuing from a chimney represents so much unconsumed fuel; unfortunately, this is only the least important consideration, the damage caused to property of all kinds by the smoke being very great. Public and private buildings are defaced, articles in the buildings such as pictures, curtains, &c., are soiled; unnecessary expense is incurred in vainly trying to keep premises clean; vegetation is destroyed; and most important of all, the sunlight is obscured by the smoke, and is prevented from playing its part in improving the health of the people.

In the case referred to above, a decided improvement has been noticed, chiefly owing to more strict supervision over the firemen, and careful attention when firing.

The time limit allowed for the emission of black smoke is 8 minutes per hour.

Slaughterhouses. The slaughterhouses have frequently been visited and the premises found in a cleanly state and lime-washed. Alterations were carried out at the three licensed slaughterhouses, the floors being relayed and the drainage rearranged.

The public abattoir is kept clean and satisfactory.

Offensive Trades. The Nook Bone works have been under observation, and several visits have been made to the premises. Occasionally a complaint is received with reference to these works, and owing to the nature of the work carried on, a certain nuisance will arise therefrom, especially when the atmosphere is so heavy that the fumes cannot easily get away. The alterations carried out last year have certainly made an improvement, and the proprietors at all times seem willing to do anything suggested to mitigate any nuisance that may arise.

Complaints were received with reference to vapours and fumes being carried from Messrs. Bowdler & Bickerdike's Chemical Works across the roadway to the property in New Lane. Visits were made to the premises and alterations suggested which were later carried out, since when there has been no further complaint.

Bakehouses. The bakehouses have been inspected and found to be satisfactory with one exception which required limewashing and cleansing, and this was done upon the occupier's attention being called to the matter.

During the year, a copy of the "Sanitary Regulations of Bakehouses" has been supplied to each occupier of a bakehouse.

Common Lodging-houses. There are no common lodging-houses in the Township.

Workshops. The workshops have been visited and with few exceptions have been found satisfactory. Insufficient closet accommodation was found in one case, and one new water closet was provided; one workshop had further fixed means of ventilation provided; eight were limewashed and cleansed, and the floor of one relaid and the drainage reconstructed.

Two notifications of new workshops were received from H.M. Inspector of Factories.

The following trades are represented in the various workshops within the district:—

Dressmakers and Milliners...	...	7
Tailors	...	5
Bootmakers and Cloggers	...	13
Joiners	...	3
Plumbers	...	2
Painters	...	4
Smiths	...	3
Wheelwrights	...	3
Tinsmiths	...	2
Laundries	...	2
Bakers and Confectioners	...	10
Miscellaneous	...	12
Total		66

Homework. There are no outworkers in the district.

Dairies and Cowsheds. Attention has again been given to the dairies and cowsheds, and many improvements have been carried out during the year, chiefly in connection with the drainage and ventilation. In many of the cowsheds the air space per cow is insufficient, and the ventilating and lighting

bad ; and, although the majority of the farmers do not believe in ventilation and so great an air space as 800 feet, as they say when the cows are not kept warm they do not yield much milk, they (the farmers) fail to appreciate the difference between a well ventilated and a draughty cow house ; still improvements are gradually taking place.

82 cowsheds—containing 535 milking cows have now been inspected, revisited, measured, and placed on the register, and during the year a copy of the following circular letter was issued to each of the farmers whose premises had been inspected :—

TOWN HALL, OSWALDTWISTLE.

Your particular attention is directed to those provisions of the Council's Regulations as to dairies and cowsheds which call for the periodic cleansing and whitewashing of the interior of shippens and dairies, and the daily scalding and cleansing of milk vessels, kits, and tins.

The Council consider that there is room for greater attention and improvement in these matters, and they will expect to find such improvement in future.

More care in the cleanly distribution and sale of milk is also to be looked for, and as one step in this direction, the Council suggest that clean linen or cotton slip sleeves should be worn over the coat or dress sleeve of the person selling milk from the kits.

In several cases also the attention of the Council's Inspector has been called to the dirty condition of the interior of boxes or receptacles in the milk floats and carts in which butter, eggs, and other food are often carried. These receptacles should be frequently washed out and cleansed, and no offal or bad or decayed food for pigs, &c., must on any account be carried in them, as has been found to be the case.

The Council fully appreciate the improvement effected by the owners in many of the cowsheds and dairies, but unless they have the co-operation of the tenants in the cleaning of the buildings, and in the best and most approved methods of the storage and distribution of milk, many of the advantages gained by the improvement of the buildings will be lost.

The Council therefore trust you will pay early and continued attention to the matters of which you are reminded in this circular.

BY ORDER.

Considerable improvement has been noticeable in the white-washing and general cleanliness of both cowsheds and dairies, the latter as a rule being well kept and clean.

Among others the following farms have been inspected and revisited:—Spring Hill Farm, Rhan, Linswithins, Grey Mare, Lower Rhoden, Nook, Bury Meadow, Duckworth Hill, Middle Duckworth Hill, Lighthurst, Lower Fold, White Croft, Brown Cow, Moss Hall, Britannia, Whittaker Hall. Sough Lane, Leg Lock, Lower Eden, Higher Eden, Pack Horse, Black Bull, Coach & Horses, Ramsclough, Broad Carr, Childers House, Gaulkthorn, Falls, Stanhill Lane, Higher Stanhill, Small Fold, Knuzden Moss, Peel Fold, Cabin End, and Bottoms.

There are no registered milkshops in the district, as all the farmers who sell milk do so from carts direct to the consumer. The milk itself is of good quality, the milk pails and kits are generally well kept and clean, and the cows as a whole are healthy.

In compiling the report I have summarised the work, shewing the number of inspections made, of notices served, structural alterations carried out, and full information will be obtained from the following tables.

SUMMARY OF INSPECTIONS AND VISITS
up to December 31st, 1909.

—0:0—

No of dwelling-houses examined as to their sanitary condition ...	721
„ inspections of workshops	107
„ „ factories with regard to the sanitary conveniences	5
„ „ slaughterhouses	175
„ „ bakehouses	43
„ „ dairies and cowsheds	130
„ „ drains to new property	80
„ „ work proceeding for abatement of nuisance after notice	670
„ „ <i>re</i> complaints	73
„ fumigations after notifiable disease	105
„ „ at schools	20
„ visits to houses in which infectious disease occurred ...	484
„ „ hospital	15
<hr/>	
Total	2628

TABLE I.

Number of Informal Notices requiring Abatement
of Nuisances, &c.

To remedy defective drains, water closets, privies, and ashpits	...	...	...	78
,, repair slopstone waste pipes	...	...	...	17
,, ,, urinals	...	...	...	2
,, ,, yard paving	...	...	...	7
,, cleanse ditch and watercourse	...	...	...	2
,, remove offensive accumulations	...	...	...	14
,, abate nuisance from the keeping of animals or poultry	...	...	...	10
,, render houses fit for human habitation	...	...	...	1
,, repair dwelling-houses	...	...	...	3
,, ,, or fix rain water spoutings	...	...	...	5
,, whitewash, purify, and cleanse dwelling-houses	...	...	...	7
,, repair, floor and redrain slaughter-house	...	...	...	2
,, limewash, purify, and cleanse workshops	...	...	...	3
,, abate nuisance caused by emission of black smoke	...	...	...	5
,, provide water closets, privies, and ashpits	...	...	...	10
,, reduce overcrowding...	...	...	...	2
Total				168

These notices were ordinary informal notices calling the attention of the persons in default to the matter, and after reporting to your Committee, it has not been necessary to serve many statutory notices, the work being done on receipt of the first notice in most cases.

73 written and verbal complaints of alleged nuisances have been received and investigated.

182 letters and memoranda have been sent out and 76 received, exclusive of reports.

TABLE II.

Alterations made, and New Structures provided in
compliance with notices.

No. of old privies converted into water closets	...	...	35
„ „ „ pail closets	...	...	9
New drains—yards in length	...	...	1050
No. of drain traps	...	...	115
„ ventilating shafts	...	...	3
„ new pans and traps in water closets	...	...	2
„ water closets repaired	...	...	15
„ pail closets „	...	...	7
„ privies „	...	...	2
„ ashpits „	...	...	57
„ urinals provided	...	...	4
„ manure pits repaired	...	...	3
„ yards paved or repaved	...	...	15
„ drains cleaned	...	...	22
„ water closets cleaned	...	...	15
„ drains and W.C's cleaned by U.D.C.	...	...	236
„ slop-stones fitted with pipes	...	...	29
„ slop-stone, bath, or lavatory pipes disconnected from sewer	...	...	5
„ new water closets	...	...	12
„ new soil pipes	...	...	3
„ new ash tubs	...	...	12
„ new urinals	...	...	1
„ cellar drains disconnected	...	...	4
„ privies demolished and removed	...	...	3
„ ashpits „ „	...	...	1
„ houses drained to sewer	...	...	69
„ stables or pig-styes drained to sewer	...	...	4
„ houses repaired and cleansed throughout	...	...	9
„ houses having had roof repaired and spoutings fixed	...	...	15
„ houses cleansed and limewashed by occupiers	...	...	12

TABLE III.

Result of Notices requiring Abatement of Nuisance from
Overcrowding in Dwellinghouses.

No. of houses in which the number of inmates was reduced	...	1
„ vacated	... ..	1

TABLE IV.—Dairies and Cowsheds.

COWSHEDS :—

No. of persons on register as cow keepers	...	33
„ cowsheds inspected and measured	...	82
„ milking cows kept	... ..	535
„ inspections	... ..	130

DAIRIES :—

No. of dairies placed on register isolated	...	15
Opening from interior of farm-house	...	21
No. of inspections	... ..	44

TABLE V.—Unwholesome Food Destroyed.

Carcase of one sheep.

Portion of beast.

TABLE VI.—Bakehouses.

No. of bakehouses in use	...	...	...	10
„ underground bakehouses		...	...	—
„ bakehouses registered as factories			...	—
„ inspections	...	...	...	43
„ bakehouses limewashed (after notice)			...	1

TABLE VII.—Slaughterhouses.

No. of slaughterhouses at public abattoir		...	5
„ registered slaughterhouses now in use		...	—
„ licensed	„	„	3
			—
	Total	...	8
„ slaughterhouse licenses renewed		...	3
„ applications for licenses for new slaughter-			
houses granted	...	...	—
„ applications for licenses for new slaughter-			
houses refused	...	...	—
„ notices of occupation received	...	...	1
„ slaughterhouses in which floors have been			
repaired	...	...	3
„ inspections	...	...	175

TABLE VIII.—Workshops.

No of new workshops notified by H.M. Inspector of Factories	...	...	...	2
„ workshops now on register	...	...	...	66
„ complaints received from H.M. Inspector of Factories	...	...	...	3
„ notices served relative to insanitary condition at workshops	...	...	...	8
„ inspections	...	...	...	107

Work carried out in compliance with notices, viz :—

„ rooms limewashed and cleansed	...	...	...	8
„ workshops in which means of ventilation have been provided	...	...	...	1
„ workshops repaired	...	...	...	1
„ other nuisances abated (principally connected with sanitary conveniences)	...	...	...	5

TABLE IX.—Infectious Disease.

125 cases were notified under the Infectious Diseases (Notification) Act, 1889, from January 1st, to December 31st, 1909.

No. of houses in which infectious diseases have occurred	...	...	...	105
„ visits to above houses	...	...	...	484
„ houses fumigated	...	...	...	105

Office. I would again bring to your notice the present office accommodation being inadequate, and as there is a lot of clerical work in connection with the duties of Inspector, a more satisfactory office would greatly facilitate the work.

In conclusion, I have to thank the Health Committee, their Chairman, and the Medical Officer of Health, for their kindness and courtesy extended to me in my official work.

I am, Mr. Chairman and Gentlemen,

Your obedient servant,

G. H. RAWLING, (Cert. Royal San. Ins.)

Inspector of Nuisances.

Health Department,

Town Hall, Oswaldtwistle,

January, 1910.

